

TABLE 34

Domestic R&D paid for by others and performed by the company, by industry and company size: 2020

(Millions of U.S. dollars)

Industry	NAICS code	Company size (domestic employees)													
		All companies	10-19 ^a	20-49	50-99	100-249	250-499	500-599	1,000-4,999	5,000-9,999	10,000-24,999	25,000 or more			
All industries	21-23, 31-33, 42-81	71,457	1,029	2,025	1,816	3,280	2,811	2,807	12,322	5,945	15,739	i	23,684		
Manufacturing industries	31-33	43,848	140	454	661	1,136	1,155	1,654	9,605	2,262	7,368		19,414	i	
Food	311	254	0	15	5	62	7	10	79	75	2		0		
Beverage and tobacco products	312	121	0	0	0	0	102	0	0	19	0		*	i	
Textile, apparel, and leather products	313-16	9	*	0	6	3	0	0	0	0	0		0		
Wood products	321	3	0	0	*	0	0	3	0	0	0		0		
Paper	322	1	0	0	0	0	1	0	0	0	0		0		
Printing and related support activities	323	1	0	1	*	*	i	0	0	0	0		0		
Petroleum and coal products	324	89 - 103	*	0	*	0	0	83 - 100	0	1	3		*		
Chemicals	325	11,675	65	133	231	496	267	379	4,605	693	4,439		366		
Basic chemicals	3251	171	0	1	2	14	3	8	i	121	20		2	0	
Resin, synthetic rubber, and artificial synthetic fibers and filaments	3252	73	1	0 - 9	*	i	*	0	1	62 - 71	0		1	0	
Pesticide, fertilizer, and other agricultural chemicals	3253	284 - 291	0	0	0	0	0	0	0	284 - 291	0		0	0	
Pharmaceuticals and medicines	3254	10,918	61	123	228	456	256	365	4,130	673	4,261		366		
Soap, cleaning compound, and toilet preparation	3256	189	0	2	0	21	0	5	0	0	160		0		
Paint, coating, adhesive, and other chemicals	3255, 3259	32 - 39	4	0 - 9	2	4	8	0	*	i	0		14	* i	
Plastics and rubber products	326	26	*	3	2	9	10	*	i	3	0		0	0	
Nonmetallic mineral products	327	98	0	0	*	i	5	0 - 11	0	0 - 11	84		0	0	
Primary metals	331	20	0	3	*	4	0	0	13	1	0		0	0	
Fabricated metal products	332	60	6	5	1	23	1	5	19	0	0		0	0	
Machinery	333	1,152	19	37	107	54	12	82	670	148	20	i	3		
Agricultural implement	33311	10 - 52	0	0	0	3	0	0	0	3 - 49	0		0 - 4		
Semiconductor machinery	333242	686	0	4	20	*	0	0	660	0	0		0	0	
Engine, turbine, and power transmission equipment	3336	122	0	1	2	1	5	15	0	99	0		0	0	
Other machinery	other 333	292 - 334	19	31	85	50	6	68	9	0 - 47	20	i	0 - 4		
Computer and electronic products	334	11,030	21	171	201	291	633	637	1,884	481	52		6,660	i	
Communications equipment	3342	996	i	0 - 22	9 - 92	*	0 - 42	123	0	460 - 619	i	0 - 323	i	0 - 323	i
Semiconductor and other electronic components	3344	2,380		0 - 22	13 - 94	38	114	i	440	466	1,214	18	i	0 - 53	0

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Navigational, measuring, electromedical, and control instruments	3345	7,493	0-22	67	162	137	11-72	171	47	141-464	0-11	6,338-6,661	i		
Electromedical, electrotherapeutic, and irradiation apparatus	334510, 334517	251	0-11	12	80	45	12	i	94	*	0	0-11	0		
Search, detection, navigation, guidance, aeronautical, and nautical system and instrument	334511	7,025	i	0	2-36	54	76	0-60	0	141-464	0	6,338-6,661	i		
Other measuring and controlling device	other 3345	217	0-22	18-52	i	27	16	0-33	77	47	0	0	0		
Other computer and electronic products	other 334	161	0	0	1	0-42	0-60	0	5-161	0	0-53	0	0		
Electrical equipment, appliances, and components	335	506	7	38	22	5	27	21	131	0	254	0	0		
Transportation equipment	336	18,564	17	23	78	169	63	393	2,138	716	2,590	12,378	i		
Motor vehicles, bodies, trailers, and parts	3361-63	3,599	0-16	0-8	0-25	50-102	31	299	1,310	423	i	1,389	i	0-100	
Aerospace products and parts	3364	13,803	i	1-18	16	54	68	28	80	i	781	278-294	1,201	11,277	i
Aircraft, aircraft engine, and aircraft parts	336411-13	13,011	i	0	9-17	49	67	28	69	i	51	250-263	1,201	11,277	i
Guided missile, space vehicle, and related parts	336414-15, 336419	793	1-18	0-7	5	*	0	11	730	20-44	0	0	0		
Military armored vehicle, tank, and tank component	336992	6	0-7	0	0-4	0	0-3	0-7	0	0	0	0	0		
Other transportation	other 336	1,155	0	0-8	0-25	0-51	0-5	6-16	48	0-16	0	1,000-1,102	0		
Furniture and related products	337	3	0	2	*	1	i	*	0	0	0	0	0		
Miscellaneous	339	215-233	4	24	8	14	23-38	21-45	49-67	45	9	6	6		
Medical equipment and supplies	3391	173	4	23	8	14	24	0	41	45	9	6	6		
Other miscellaneous manufacturing	3399	42-60	0	*	1	*	0-14	21-45	7-27	0	0	0	0		
Nonmanufacturing industries	21-23, 42-81	27,608	888	1,570	1,156	2,144	1,655	1,152	2,717	3,684	i	8,371	i	4,270	
Mining, quarrying, oil and gas extraction, and support activities	21	45	0-7	4	i	0-42	i	0	0	0	*	0-41	0		
Utilities	22	40	0	4	0	0	0	0	*	*	0	35	35		
Wholesale trade	42	58	8	19	1	i	27	i	3	0	*	0	0		
Electronic shopping and electronic auctions	454111-12	2-50	0	0	2-50	0	0	0	0	0	0	0	0		
Transportation and warehousing	48-49	3	0	1	0	0	0	3	0	0	0	0	0		
Information	51	1,113	6-31	150	27	115	63	95	70	117	217-249	224	224		

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Publishing	511	509	7	57	25	12	25	52	0	108	0	224
Newspaper, periodical, book, and directory publishers	5111	0	0	0	0	0	0	0	0	0	0	0
Software publishers	5112	509	7	57	25	12	25	52	0	108	0	224
Telecommunications	517	54 - 66	0 - 25	0 - 48	1	0 - 65	0	0	0	0	0	0
Data processing, hosting, and related services	518	446	0 - 25	47	2	0 - 32	38	43	70	0	217 - 249	0
Other information	other 51	91 - 105	0	0 - 48	0	34 - 97	0	0	0	9	0	0
Finance and insurance	52	92	0	0	0	0	5	0	0	45	0	41
Real estate and rental and leasing	53	*	0	0	0	*	0	0	0	0	0	0
Lessors of nonfinancial intangible assets (except copyrighted works)	533	*	0	0	0	*	0	0	0	0	0	0
Other real estate and rental and leasing	other 53	0	0	0	0	0	0	0	0	0	0	0
Professional, scientific, and technical services	54	26,045	844	1,378	1,044	1,964	1,569	1,046	2,621	3,497	i 8,114	i 3,969
Architectural, engineering, and related services	5413	2,001	104	187	177	258	443	42	19	i 139	45	587
Computer systems design and related services	5415	3,643	152	122	172	335	88	57	706	0	1,676	335
Scientific research and development services	5417	19,354	540	1,000	640	1,194	800	819	1,896	3,358	i 6,393	i 2,713
Research and development in nanotechnology	541713	53	i 19	i 35	i 0	0	0	0	0	0	0	0
Research and development in biotechnology (except nanobiotechnology)	541714	5,014	77	202	149	121	77	59	0	0	1,615	2,713
Research and development in the physical, engineering, and life sciences (except nanotechnology and biotechnology)	541715	13,632	i 440	760	489	424 - 1,074	723	760	1,247 - 1,897	i 3,358	i 4,778	i 0
Research and development in the social sciences and humanities	541720	654	4	2	1	0 - 649	0	0	0 - 649	0	0	0
Other professional, scientific, and technical services	other 54	1,048	48	70	55	177	238	128	0	0	0	334
Health care services	621-23	103	7	11	33	14	0 - 18	9	*	i 12	i 0 - 18	1
Other nonmanufacturing	23, 44-45 (excluding 454111-12), 55-56, 624, 71-72, 81	62 - 109	0 - 25	3	0 - 47	24	0 - 18	0	25	12	0	0

* = amount < \$500,000; i = more than 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2017 North American Industry Classification System.

^a The Business Enterprise Research and Development Survey does not include companies with fewer than 10 domestic employees.

Note(s):

Detail may not add to total because of rounding. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed or funded \$50,000 or more of R&D and are not comparable with estimates published for years prior to 2018. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

Source(s):

National Center for Science and Engineering Statistics and Census Bureau, Business Enterprise Research and Development Survey, 2020.